



IFW

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Hiroshi YAMADA et al.

Group Art Unit: 2826

Application No.: 10/542,147

Examiner: B. LIU

Filed: July 13, 2005

Docket No.: 124683

For: PHOTOELECTRIC TRANSDUCER, PHOTOELECTRIC TRANSDUCER
APPARATUS, AND IRON SILICIDE FILM

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the May 19, 2006 Office Action, reconsideration of the application is respectfully requested.

Claims 1-17 are pending in this application.

The Office Action does not address claims 9-17 as submitted in the Preliminary Amendment filed July 13, 2005. A photocopy of the filing receipt of the July 13, 2005 Preliminary Amendment is enclosed. Applicants respectfully request examination of claims 9-17.

The Office Action rejects claims 1-8 under 35 U.S.C. §102(b) over U.S. Patent No. 5,401,330 to Saito et al. (Saito). Applicants respectfully traverse this rejection.

Applicants respectfully submit that Saito fails to disclose each and every feature of independent claims 1, 7, and 8. Specifically, Saito fails to disclose an i-layer containing an iron atom, a silicon atom bonded to the iron atom, and a hydrogen atom.

The Office Action asserts that Saito discloses an i-layer, citing Saito col. 1, line 25, which states "for example, from the solar cell view point, the reflectivity between amorphous silicon semiconductor hydride and metal has been investigated." This citation from Saito does not disclose an i-layer containing an iron atom, a silicon atom bonded to the iron atom, and a hydrogen atom.

The Office Action further cites Saito, col. 4, lines 38-40, which state "further, it is believed that light absorption changes may occur due to ligand field absorption of the first transition group metal atoms, so that the initial characteristic can be improved due to changes in the light reflection dispersion. Among the first transition group metal atoms, iron, nickel, and chromium atoms are particularly preferable." However, this description relates only to the light reflecting layer, not to the i-type layer. Thus, this citation also does not disclose an i-layer containing an iron atom, a silicon atom bonded to the iron atom, and a hydrogen atom.

The Office Action further cites Saito, col. 11, lines 22-26, which state "the materials for the i-type layer may include, for example, amorphous materials such as a-Si:H, a-Si:HX, a-SiC:H, a-SiC:HX, a-SiGe:h, a-SiGe:HX, and a-SiGeC:HX. In particular, the i-type layer is suitably composed of a material made intrinsic by adding group III atoms or group V atoms in the periodic table as the valence control agent to the amorphous material as above cited." Saito subsequently discusses group III and group V atoms in the i-layer at col. 12, lines 18-33, but fails to teach or suggest an i-layer containing an iron atom, a silicon atom bonded to the iron atom, and a hydrogen atom.

According to Saito, the light reflecting layer contains an iron atom, but the i-type layer does not contain an iron atom. For at least this reason, Applicants submit that Saito fails to disclose each and every feature of independent claims 1, 7 and 8. Applicants further submit that claims 2-6 are patentable at least for their dependence from claim 1, as well as for the

additional features they recite. Withdrawal of the rejection of claims 1-8 over Saito is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration of claims 1-8 and prompt allowance of claims 1-17 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Donald A. DiPaula
Registration No. 58,115

JAO:DAD/jth

Attachment:

Photocopy of July 13, 2005 Filing Receipt for Preliminary Amendment

Date: August 14, 2006

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--



PTO RECEIPT FOR FILING OF PAPERS

The following papers have been filed:

chk#168687 (\$900); PCT Trans; ISR; translated PCT Request; prelim amend; 26pp (English translation of Int. App.) Spec/8 Clms/Abst; 5pp Drwgs (Figs 1-7).

Name of Applicant: Hiroshi YAMADA; Hisao MOROOKA; Kazuo NISHI

Serial No.: New U.S. Patent Application

Atty. File No.: 124683

Title (New Cases): PHOTOELECTRIC TRANSDUCER, PHOTOELECTRIC
TRANSDUCER APPARATUS, AND IRON SILICIDE FILM

Sender's Initials: JAO/nxy

NEW APPLICATION

59 / 14

PATENT OFFICE DATE STAMP



39

**COPY TO BE STAMPED BY PATENT OFFICE
AND RETURNED BY MESSENGER**